#### THOMAS FIRE CULTURAL RESOURCE BAER REPORT

Cultural Resources
Thomas Fire
January 2017
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Los Padres National Forest

### I. Potential Values at Risk

#### A. Critical Values

Cultural resources and their spatial associations may be altered by fire and the conditions that arise within the post-fire environment. Deteriorated soil conditions resulting from the Thomas Fire have the potential to directly and indirectly impact cultural resources located on Forest Service managed lands. Post-fire soil erosional threats to cultural resources in high to moderate severity burns have been well documented (Lentz et al. 1996; Nisengard et al. 2001; Buenger 2003). Post-fire erosional threats include: the development of gullying or rilling that can expose and remove buried cultural deposits or burials; increased levels of sheet-wash that erodes archaeological features and/or removes artifacts from site locations; and fire-killed trees that fall and up-root may result in the destruction of archaeological features/architecture and expose subsurface archaeological deposits. Increased site access and visibility also raises the risk of looting and vandalism (Christiansen et al. 1992). Loss of archaeological materials can be expected as a result of this increased visibility and access, cultural sites within the burn area have a history of being vandalized and/or looted.

Cultural resource values at risk include Native American and historic archaeological sites and modern ceremonial and gathering locations. Many of the values are fragile and their loss considered irreversible and irretrievable. Those values are information and data contained in the archaeological sites regarding Native American and historic populations, environments, climates, and land use as well as tangible cultural items associated with the history of southern California.

BAER treatments on cultural resources affected by moderate to high severity burns are warranted to mitigate the aforementioned effects. Treatment of archaeological sites can employ general BAER treatments such as reseeding, mulching, log erosion control barriers, and tree removal (Timmons et al. 2012). Other forms of soil stabilization and water diversion treatments listed in the Burned Area Emergency Response Treatment Catalog (Napper 2006) may also prove effective.

#### B. Resource Condition Assessment

## (a) Resource Setting

The burn area is prehistorically attributed to the Barbareño and Ventureño Chumash who occupied the area prior to European contact and settlement. These groups are considered part of the larger Chumash culture who occupied this portion of the California coastal mountains from Malibu to San Luis Obispo including the Northern Channel Islands. The highly populous and successful Chumash are known to have had one of the most complex social, political, and economic systems in California at the time of European contact.

Numerous site types are present within the area of the burn representing both prehistoric and historic periods. Most of the site types are prehistoric and include rock art, intact midden deposits, lithic production, early period milling stations, habitation, ceremonial, and cemeteries. Historic land use includes site types representing homesteading, mining, grazing, agriculture, cemeteries, and features associated with the Civilian Conservation Corps.

Minimal survey coverage for cultural resources exists on National Forest land within the burn area due to rugged terrain, thick vegetation, and the paucity of related federal projects that would initiate compliance with Section 106 of the National Historic Preservation Act. Many of the recorded archaeological sites within and around the burn area have yet to be evaluated for inclusion in the National Register of Historic Places. These resources are assumed eligible for inclusion and will be treated as Historic Properties for the purpose of this analysis, pursuant to 36CFR800 and the Forest Land Management Plan (S60).

## (b) Preliminary Findings

A preliminary record research in response to the immediate need for cultural resource field work and analysis in association with fire suppression activities of the Thomas Fire resulted in identifying both previous cultural resource surveys and known cultural sites within the fire's Area of Potential Effects. This area is known through historical records and archaeological investigations to contain abundant prehistoric and historic era land use.

#### **II. BAER Risk Assessment**

The objective of this report is to identify cultural resource sites considered threatened by deteriorated post-fire conditions, and make treatment recommendations that will reduce damage to site integrity and significance caused by increased runoff, erosion, and debris flows resulting from effects of damaging events (i.e., storms) on the deteriorated watershed.

This cultural resources assessment centers on post-fire conditions that could directly or indirectly result in adverse effects to known cultural resource sites. Adverse effects may

include the potential to bury surface and subsurface cultural resources to prohibit discovery; the possibility of soil movement that would change the context of the remains which are vital to any scientific analysis or interpretation value; and increasing the visibility of site locations that would make them more susceptible to looting or vandalism.

When the BAER Risk Matrix (see Table 1) is applied to cultural resources situated in moderate to severe post-fire conditions within the Thomas Fire, the Probability of Damage or Loss is <u>Likely</u> whereas the Magnitude of Consequences is <u>Moderate</u>, resulting in a <u>High</u> risk to cultural resource sites.

Table 1. Risk Matrix used to determine if treatments are necessary

Probability	Magnitude of Consequences				
of Damage or Loss	Major Moderate Minor				
		RISK			
Very Likely	Very High	Very High	Low		
Likely	Very High	High	Low		
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Possible	High	Intermediate	Low		
Unlikely	Intermediate	Low	Very Low		

Below is a table (Table 2) of known cultural resources within the burn area of the Thomas Fire. Targeted resources for BAER treatment are identified within the table and specifically described in section D, Treatments to Mitigate the Emergency.

Table 2. Known cultural sites within the burn perimeter

Site #	Site Type	Description	Burn Severity	Anticipated Post Fire Effect	Proposed Treatment
54-002	Р	Chumash Village	No Data	Flooding/Debris	May be off Forest
54-004	Н	Chumash Camp	Mod to High	Flooding/Debris	No Treatment
54-007	Р	BRM, Rock Ring, Artifacts	Moderate	Flooding/Debris	No Treatment
54-008	Р	Chumash Camp	Moderate	Flooding/Debris	No Treatment
54-010	Н	Graves with Markers	Low	Debris/Flood/Erosion	No Treatment
54-012	MC	Artifacts, Features	Low	Erosion	No Treatment
54-013	Р	Features, Artifacts, Midden	Mod to High	Debris/Mud/Erosion	Private Inholding
54-029	Р	Rockshelters w/ Rock Art	Low	Flooding/Debris	No Treatment
54-030	Р	Rockshelters w/ Rock Art	Low	Unknown	No Treatment

Table 2. Known cultural sites within the burn perimeter Continued...

Site Type	Description	Burn Severity	Anticipated Post Fire Effect	Proposed Treatment
Р	Dense Lithic Scatter	Low	Unknown	No Treatment
P	Rockshelter with Artifacts	High	Probably Not at Risk	No Treatment
Unkn	No Site Form	Moderate	Unknown	No Treatment
P	Village Site, Groundstone	Low	Unknown	No Treatment
P	Lithic Scatter	Low to Mod	Flooding/Debris	No Treatment
P	Lithic Scatter	Unburned	Unknown	No Treatment
P	Stone Bowl	Unburned	Not at Risk	No Treatment
P	Lithic Scatter	Moderate	Exposure and Erosion	No Treatment
Р	Shell Midden with Artifacts	Moderate	Flooding/Debris	No Treatment
Р	Rock Rings	Moderate	Flooding/Debris	No Treatment
Р	Artifact Concentrations	Moderate .	Flooding/Debris	No Treatment
P	Shell Midden	Low	Flooding/Debris	No Treatment
P	Sandstone Pestle	Unburned	Not at Risk	No Treatment
P	Rockshelter w/ Rock Art	Moderate	Not at Risk	No Treatment
Р	Rockshelster	Moderate	Not at Risk	No Treatment
Р	Bedrock Mortar	Moderate	Not at Risk	No Treatment
Р	Shell Midden with Artifacts	Moderate	Debris/Flood/Erosion	Wattles/ Blanket
Р	Shell Midden with Artifacts	Low	Debris/Flood/Erosion	No Treatment
Р	Lithic Scatter	Unburned	Debris/Flood/Erosion	No Treatment
Р	Midden Site	Unburned	Debris/Mud/Flooding	No Treatment
Н	CCC Camp w/ Foundations	Unburned	Debris/Mud/Flooding	No Treatment
Р	Shell Midden	Low	Debris/Mud/Flooding	No Treatment
Р	Lithic Scatter	None to Low	Debris/Mud/Flooding	No Treatment
Р	Shell Midden with Artifacts	Unburned	Debris/Mud/Flooding	Outside Burn
Р	Stone Bowls and GS	Low	Debris/Mud/Flooding	No Treatment
Р	Lithic and Groundstone	Low	Debris/Mud/Flooding	No Treatment
Р	Lithic Scatter	Unburned	Debris/Mud/Flooding	No Treatment
Р	Lithic Scatter	Moderate	Debris/Mud/Flooding	Private- No Treatment
Р	Rockshelter w/ Rock Art	Unburned	Not at Risk	No Treatment
Р	Lg Cupule Rock	Low	Possible Debris	No Treatment
Н	Cabin Site (burned)	Moderate	Erosion, Debri	No Treatment
Р	Bedrock Mortars	Moderate	Debris/Boulders	No Treatment
Р	Lithic Scatter	Moderate	Not at Risk	No Treatment
Р	Artifacts, Features	Moderate	Debris Possible	No Treatment
Р	Lithic Scatter	Moderate	Debri/Mud/Flooding	No Treatment
Р	Lithic Scatter	Moderate	Not at Risk	No Treatment
Р	Processing Site	Moderate	Increased Erosion	No Treatment
Р	Lithic/ Ground Stone	Moderate	Not at Risk	No Treatment

Table 2. Known cultural sites within the burn perimeter Continued...

Site	2. Known cultural sites w	Burn	Anticipated	Proposed
Туре	Description	Severity	Post Fire Effect	Treatment
Р	Lithic/ Ground Stone	Moderate	Not at Risk	No Treatment
Р	Lithic/ Ground Stone	Moderate	Not at Risk	No Treatment
Р	Lithic/ Ground Stone	Moderate	Erosion/Boulders	No Treatment
Р	Bedrock Mortars	Moderate	Not at Risk	No Treatment
Р	Lithic/ Ground Stone	Moderate	Not at Risk	No Treatment
Р	Lithic Scatter	Moderate	Not at Risk	No Treatment Recommended
Р	Lithic/ Ground Stone	Moderate	Erosion	No Treatment
Р	Lithic/ Ground Stone	Moderate	Unknown	No Treatment
Р	Lithic Scatter	Moderate	Erosion	No Treatment
Р	Lithic Scatter	Moderate	Erosion/Mud/Debris	No Treatment
Р	Hearth	Moderate	Erosion	Water Bar
Р	Lithics, BRM	Mod to High	Exposure and Erosion	Close/Divert Foot Traffic
Н	Artifact Concentration	Mod to High	Exposure and Erosion	Private- No Treatment
Н	Homestead	Moderate	Unknown	No Treatment
Р	Lithics and Hopper Mortar	Unburned	Unknown	No Treatment
Н	Guard Station w/ Barn/Garage	Unburned	Low Risk	No Treatment
Р	6500 BP Shell Lens	Moderate	Debris/Flood/Erosion	No Treatment
Р	Midden and Burials	Low	Flooding/Debris	No Treatment
Н	Site of Ortega Home/Lodge	Moderate	Unknown	Private- No Treatment
Р	Rockshelter	Moderate	Flooding/Debris	Close and Monitor
Н	Adobe	None to Low	Unknown	No Treatment
Р	No Site Form	Unburned	Not at Risk	No Treatment
Р	Site	Low	Flooding/Debris	Off Forest
Н	Homestead 1880-1914	Low	Flooding/Debris	No Treatment
Н	Ranch 1915-1945	Moderate	Flooding/Debris	Private- No Treatment
Р	Rockshelter/Rock Art	Moderate	Flooding/Debris	Private- No Treatment
Р	Lithic Concentration	Low	Flooding/Debris	No Treatment
Р	Two Sites Same No.	Moderate	Exposure and Erosion	Private- No Treatment
Р	Shell Midden with Artifacts	Moderate	Exposure and Erosion	Private- No Treatment
Р	Midden/Burial	Low to Mod	Flooding/Debris	Close & Erosion Control
Р	Bedrock Mortars & Camp	Low to Mod	Flooding/Debris	Close and Wattles
Р	Bedrock Mortars/Artifacts	Low	Slide & Debris	No Treatment
Р	Rockshelter with Hearth	Low	Unknown	No Treatment
Р	Lithic Scatter	Unburned	Unknown	No Treatment
Р	Artifact Concentration	Moderate	Unknown	Private- No Treatment

Table 2. Known cultural sites within the burn perimeter Continued...

Site	Description	Burn	Anticipated	Proposed
Туре	· ·	Severity	Post Fire Effect	Treatment No Treatment
Р	Rockshelter with Rock Art	Low	Unknown	
Р	Lithic Scatter	Low	Unknown	No Treatment
Р	Lithic and Groundstone	Unburned	Unknown	No Treatment
Р	Lithic and Groundstone	Unburned	Unknown	No Treatment
Р	Lithic and Groundstone	Unburned	Unknown	No Treatment
Р	Lithic and Groundstone	Unburned	Unknown	No Treatment
Р	Lithic Scatter	Unburned	Unknown	No Treatment
Р	Lithic and Groundstone	Unburned	Unknown	No Treatment
Р	Lithic Scatter	Unburned	Unknown	No Treatment
Р	Lithic Scatter	Low	Unknown	No Treatment
Р	Lithic Scatter	Low	Unknown	No Treatment
Р	Lithic Scatter	Low	Unknown	No Treatment
Р	Lithic Scatter	Unburned	Unknown	No Treatment
Р	Lithic Scatter w/ Bone	Unburned	Unknown	No Treatment
Н	Basque Homestead	Unburned	Debri/Mud/Flooding	No Treatment
Н	Foundation and Chimney	Moderate	Unknown	Private- No Treatment
Н	Barn/Garage	Low to Mod	Flooding/Debris	Close
Н	Stone House/Guard Sta.	Low to Mod	Flooding/Debris	Close
Н	Stone Masonry Retaining Wall	Low to Mod	Flooding/Debris	Recover Sandstone Blocks
Р	Ground Stone	Low	Debris/Mud/Flooding	No Treatment
Н	Rockshelter with Rock Art	Low to Moderate	Debris/Mud/Flooding	Close
Н	Stone Masonry Retaining Wall	Low to Mod	Flooding/Debris	Recover Sandstone Blocks
Р	Stone Bowls	Moderate	Mud/Debris	Close and Erosion Blanket
Н	Wood Post	Moderate	Not at Risk	No Treatment Recommended
Р	Lithic Artifacts	Moderate	Not at Risk	No Treatment Recommended
Р	Cupule Boulder	Moderate	Unknown	Forest Adjacent to Private

<sup>\*</sup> Red text denotes sites requiring BAER treatments

## C. Emergency Determination

The Thomas Fire burned 42,000 acres in one burning period at night and proceeded to burn over 280,000 acres within a three week period. Though large portions of the burn area have not been adequately surveyed there are 110 known cultural resources within the burn perimeter. A devastating winter storm was forecasted and made landfall in the burn area five days after the BAER team was initiated. Field assessments were carried out in a triage manner identifying high risk values based on burn severity, archaeological records, and local knowledge. Sixteen archaeological sites were assessed for BAER

treatment. Of these, twelve have been determined to require treatment to protect intact cultural deposits and the scientific data they contain. Also, a large number of cultural resources in the burn area are now at an increased risk of being destroyed by looting due to the decrease in foliage, duff, and other natural visual barriers.

In addition to the risk of post-burn environs, proposed treatments by other BAER specialists (hydrologists, soil scientists, geologists, recreation) may have the potential to affect cultural resources and are subject to the provisions of 36 CFR 800. Prior to BAER implementation, an archaeologist should be assigned to the implementation team to ensure that inventory and compliance requirements per National Historic Preservation Act and the Region 5 Programmatic Agreement with the California State Historic Preservation Officer are satisfied.

## D. Treatments to Mitigate Emergency Risks

## General Treatment for Exposed Cultural Resources:

- (a) Treatment Type: Install signage related to the Archaeological Resource Protection Act and other policy to help protect exposed sites from being looted.
- (b) Treatment Objective: Educate the public who is not aware of the laws, and provide an avenue to prosecute looters within the burn area and prevent the destruction of important cultural resources.
- (c) Treatment Description: 12" x 16" metal educational signs that inform the public about the importance of cultural resources and the laws protecting them. The signs will be installed at campgrounds, trailheads, and access points located around and within the burn area. Forest Service Law Enforcement will be contacted to respond to any illicit activities pertaining to cultural resources.
- (d) Treatment Cost: Sign production and installation: See Table 3
- (e) Probability of completing treatment in first year: High—signs can be ordered and it would take a GS-5 Technician four days to install all signs
- (f) Probability of treatment success: Good—Informational signs educate the public who would unknowingly violate the protection laws; and for those who knowingly violate them, increase the viability of criminal prosecution through the Archaeological Resource Protection Act of 1979 (ARPA).

#### Site:

- (a) Treatment Type: Place erosion control mats and fiber logs on parts of the site burned over.
- (b) Treatment Objective: Stabilize site components from eroding further, prevent off-road use and obscure visibility from members of the public who might stumble upon and vandalize it.
- (c) <u>Treatment Description</u>: Mat and logs would be placed on the section of the site that has been burned over to expose artifacts and features. Two archaeologists would carry the material in to complete the work on site.
- (d) Treatment Cost: Equipment and personnel costs: See Table 3

- (e) Probability of completing treatment in first year: High—this work would take one day and would require two archaeologists working together.
- (f) Probability of treatment success: Good—artifacts will be stabilized and while mats will be deterring accidental discovery.

## Site:

- (a) Treatment Type: Install water diversion ditch on Big Caliente Road so that water run-off can deflect off roadbed into an existing outlet.
- (b) Treatment Objective: Prevent erosion to hearth feature that is situated nearby within the roadbed.
- (c) <u>Treatment Description</u>: Utilize shovels and picks to create a linear drainage and line with sandbags for additional armor. Finish with a layer of soil to stabilize the sandbags.
- (d) Treatment Cost: Work was successfully completed during the assessment phase and will not incur any further implementation costs.
- (e) Probability of completing treatment in first year: High—three archaeologists and the Cobra Hand Crew have already implemented the work within 4 hours.
- (f) Probability of treatment success: Good—the proposed treatment is designed to provide immediate relief from the threat of erosion.

## Site

- (a) Treatment Type: Place closure signs and install erosion control mats on site.
- (b) Treatment Objective: Stabilize site components from eroding further, prevent off-road use and obscure visibility from members of the public who might stumble upon and vandalize it. Site is currently accessible by using an unauthorized trail leading to the peak where the site is situated.
- (c) <u>Treatment Description</u>: Place mats on identified portions of the site and install "Area Closed" fiberglass signs. An archaeologist and an archaeological technician would be needed for the work.
- (d) Treatment Cost: Equipment and personnel costs: See Table 3
- (e) Probability of completing treatment in first year: High—all personnel and equipment would be from the local Forest Unit and would be completed by an archaeologist with the assistance of an archaeological technician within one day.
- (f) Probability of treatment success: Good— installed sign will deter access, artifacts will be stabilized and the mats will deter accidental discovery.

#### Site:

- (a) Treatment Type: Place closure signs at the site within Wheeler Gorge Campground.
- (b) Treatment Objective: Prevent accidental discovery of the site from members of the public who might stumble upon it and vandalize/loot it.
- (c) Treatment Description: Install fiberglass "Area Closed" signs in strategic locations visible to the public.
- (d) Treatment Cost: Equipment and personnel costs: See Table 3
- (e) Probability of completing treatment in first year: High—this work would take one day of the archaeologists working together.

(f) Probability of treatment success: Good—installed sign will deter access.

#### Site:

- (a) Treatment Type: Place closure signs and install erosion control mats on site.
- (b) Treatment Objective: Stabilize site components from eroding further, prevent off-road use and obscure visibility from members of the public who might stumble upon and vandalize it.
- (c) Treatment Description: Place mats on identified portions of the site and install "Area Closed" fiberglass signs on both sides of the road that is used to service the powerline that is situated within the perimeter of site. Additionally, inform occupants of the adjacent guard station to avoid any ground disturbing activity within site area.
- (d) Treatment Cost: Equipment and personnel costs: See Table 3
- (e) Probability of completing treatment in first year: High—all personnel and equipment would be from the local Forest Unit and work would be completed within one day requiring two archaeologists working together.
- (f) Probability of treatment success: Good— installed sign will deter access, artifacts will be stabilized and the mats will deter accidental discovery.

## Site:

- (a) Treatment Type: Place closure signs and install erosion control mats or logs on site.
- (b) Treatment Objective: Stabilize site components from eroding further, prevent off-road use and obscure visibility from members of the public who might stumble upon and vandalize it. The area is located on the base below the convergence of several drainages and has been popular destination with target shooting enthusiasts.
- (c) Treatment Description: Place mats on identified portions of the site and install "Area Closed" fiberglass signs. An archaeologist and an archaeological technician would be needed for the work.
- (d) Treatment Cost: Equipment and personnel costs: See Table 3
- (e) Probability of completing treatment in first year: High—this work would take one day and would require two archaeologists working together.
- (f) Probability of treatment success: Good— installed sign will deter access, artifacts will be stabilized and the mats will also be deterring accidental discovery.

## Site:

- (a) Treatment Type: Place closure signs near the historic garage and install erosion control logs on site if needed.
- (b) Treatment Objective: Stabilize site components from eroding further and deter members of the public from inadvertently damaging the structure further.
- (c) <u>Treatment Description</u>: Place logs on identified portions of the site and install "Area Closed" fiberglass signs.
- (d) Treatment Cost: Equipment and personnel costs: See Table 3

(e) Probability of completing treatment in first year: High—all personnel and equipment would be from the local Forest Unit and would be completed by an archaeologist with the assistance of an archaeological technician within one day. (f) Probability of treatment success: Good— installed sign will deter access and site will have increased stabilization.

## Site:

- (a) Treatment Type: Place closure signs near the historic rock house and install erosion control mats on site.
- (b) <u>Treatment Objective</u>: Stabilize site components from eroding further and deter members of the public from inadvertently damaging the structure further.
- (c) <u>Treatment Description</u>: Place logs on identified portions of the site and install "Area Closed" fiberglass signs.
- (d) Treatment Cost: Equipment and personnel costs: See Table 3
- (e) Probability of completing treatment in first year: High—all personnel and equipment would be from the local Forest Unit and would be completed by an archaeologist with the assistance of an archaeological technician within one day.
- (f) Probability of treatment success: Good— installed sign will deter access and site will have increased stabilization.

### Site:

- (a) Treatment Type: Place closure signs at the site within Campground.
- (b) Treatment Objective: Prevent accidental discovery of the site from members of the public who might stumble upon it and vandalize/loot it.
- (c) <u>Treatment Description</u>: Install fiberglass "Area Closed" signs in strategic locations visible to the public.
- (d) Treatment Cost: Equipment and personnel costs: See Table 3
- (e) Probability of completing treatment in first year: High—all personnel and equipment would be from the local Forest Unit and would be completed by an archaeologist with the assistance of an archaeological technician within one day.
- (f) Probability of treatment success: Good— installed sign will deter access and accidental discovery.

# Site Retrieval of CCC Era Stone Retaining Wall Elements:

- (a) Treatment Type: Recover CCC era sandstone hand cut blocks dislodged from bridge retaining wall in Wheeler Gorge washed into Matilija River below archaeological site to protect cultural resource at risk.
- (b) Treatment Objective: Retrieve the artifacts washed into the river below prior to additional flooding and mud/debris flows as a result of anticipated storm events.
- (c) <u>Treatment Description</u>: Contract a crane and operator to move the hand cut blocks back onto the bridge and out of the Matilija River channel.
- (d) Risk Assessment Process: Exhibit 2 of Interim Directive No.: 2520-2010-1 was used to evaluate the Risk Level for each valued identified during Assessment. Result = *Very High*
- (e) Treatment Cost: See Table 3

Table 3. Treatment costs; immediate treatments

Line Item	Units
GS-9 Archaeologist	23 days
GS-5 Archaeological Tech	23 days
GSA Vehicle Mileage	2,000 miles
11" x 16" Metal Signs	12
Road Marker Starter	1
Road Marker Driver	1
Carsonite Road Marker w/Stickers	20
Wooden Stakes	3
Ground Staples	1
Coir Fiber Mats	5
Coir Fiber Logs (10' x 12')	5
Crane Rental and Operator	1
Total	

## <u>Post-Implementation Treatment Monitoring:</u>

- (a) Treatment Type: Post-implementation and archaeological site monitoring
- (b) Treatment Objective: Assess effectiveness of BAER treatments
- (c) Treatment Description: Monitor the twelve archaeological sites given specific treatment for the impacts of the treatment—assess whether or not the treatments prevented off-road travel and looting on those sites. Possible measures for monitoring effectiveness include but are not limited to: whether surface artifacts remain on the site as mapped; whether pot hunting holes are observed on site; whether there is additional development of trail or two track roads in the site; the number of Law Enforcement contacts and ARPA violations reported; and whether the site blends with the natural environment such that vandalism doesn't occur (Gassaway 2007).
- (d) Treatment Cost: Government vehicle and personnel costs: See Table 4
  (e) Probability of completing treatment in first year: High—all personnel and equipment would be from the local Forest Unit and would be completed within two days.
- (f) Probability of treatment success: Good—monitoring has been shown to be an effective tool in assessing impacts of treatments (Gassaway 2007; Napper 2006).

Table 4. Treatment Cost: Post-Implementation Monitoring

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Line Item	Units	
GS-9 Archaeologist	3 Days	
GS-5 Archaeological Tech	3 Days	
GSA Vehicle Mileage	1,000 miles	
Total		

Table 5. Total cost for BAER treatments

Line Item
BAER Treatments
Post-Implementation Treatment Monitoring
Total

## III. Discussion/Summary/Recommendations

The effects described above are expected to exacerbate during the coming rainy season resulting in the loss of archaeological values. The implementation of erosion control treatments at identified sites will protect valuable archaeological deposits from being lost to erosion and increased soil movement. A combination of wattles and erosion control fabric will help stabilize sites identified for such treatment. Specific sites at risk from public exposure will have closure signs posted to keep public from entering site boundaries and disturbing intact cultural context. Closures are planned no longer than a year from date of containment.

Cultural resources in the burn area are at a heightened risk of looting and/or unauthorized recreational access. Installation of educational and federal law signs for the public at various trailheads and campgrounds associated with the burn area help prosecute looters within the burn area and help prevent the destruction of important cultural resources by educating the public. .

There are no anticipated adverse effects to cultural resources by the implementation of proposed BAER treatments. All BAER treatments will be reviewed by Los Padres National Forest Heritage staff and will be conducted in compliance with the provisions of the *Programmatic Agreement Among the U.S.D.A. Forest Service, Pacific Southwest Region, California State Historic Preservation Officer, and Advisory Council on Historic Preservation Regarding the Identification, Evaluation and Treatment of Historic Properties Managed by the Pacific Southwest Region, California* (R5PA). If stipulations of the R5PA cannot be followed for proposed BAER treatments consultation with the California State Historic Preservation Officer will be required.

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#### V. Appendix

Map of cultural resources within the burn area and proposed locations for BAER treatments. On file at the Los Padres National Forest Cultural Resource Center Santa Barbara, California